300 Area End State Workshop, May 19, 2005

Future Land Uses

Question: Based on the possible post-cleanup land uses (primarily focused on the time frame of 20 years into the future and beyond),

- What range of activities could the public, workers, and/or visitors be involved in within the region now known as the (industrialized) 300 Area?
- Outside the industrialized 300 Area?
- Should other alternative activities (beyond those consistent with the assumed land uses) be considered for comparison or other purposes?
- Based on the desired land-use and exposure scenarios, what types of institutional controls are appropriate, and over what time frames?

Summary – Potential Future Land Uses

Industrial

- Industrial business uses by DOE or Department of Defense, such as biological and chemical research, high-tech engineering, and research on how to get uranium out of the environment.
- Agricultural uses (e.g., wineries)
- Passive Energy Generation
- Office Complex Development
- Energy Development
- Sustainable research and development for "green" energy and development.
- Redevelop the area with facilities for educational use
- Redevelop with light industry – especially those that could make use of the Treated Effluent Disposal Facility.
- Develop the area into a transportation HUB because of the proximity to rail lines, barge dock and major highways.
- Bridge to Pasco
- The area could be used for future government missions.
- Entry to National Monument

Recreational

- Retirement area (unconstrained uses similar to 100-Area Workshop, such as a golf course, swimming pools, walking path along the river)
- Recreation, especially along the River – biking, boating, walking
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- When excavating contaminated soil, continue digging to excavate the contaminated aquifer material and create "One Big Marina"

Other

- Any land with a river view should be unrestricted (because of its high value).
- Leave the 300 Area as an open area with natural vegetation – no irrigation will be required resulting in less uranium being released to groundwater, protect cultural and historical resources

- The area could be developed for a variety of uses like the Columbia Point area in Richland

Considerations for Future Land Use decisions

- Several requirements that need to be included to attract industrial users
    - The user's liability must be capped so they are not taking the risk of being responsible for preexisting contamination
    - Must provide other incentives to use previously contaminated land when lots of clean land is available – tax reduction or other incentives.
- Protect Cultural Resources
- Secure a 100 meter strip along the river for unrestricted use cleanup standard
- A preference for non irrigated uses over irrigated uses to minimize mobilization of uranium.
- Water (the Columbia River) is an attractant – people will want to use this area for recreation or other uses that give them access to the location and the river shore in the future.
- Reuse the land for industrial development rather than have industry continue to sprawl into undeveloped areas.
- Reuse of the area will lead to better protection of any contamination that remains. People living and working in a region with remaining contamination and institutional controls will pay attention which will lead to better protection. An example given was the desecration of Civil war battle fields that are not set aside and maintained. Isolated locations in the woods are much more often looted than those that are identified and maintained.
- Kids will dig – concern that where ever they are, kids like to dig and will encounter any contamination that will remain.
- The contamination distribution must be well understood so decision makers can be well informed as they make trade off decisions about where cleanup effort is focused. Can a large area be cleaned up to unrestricted use for the same cost remediating a small hot spot buried deeply – and is that an appropriate trade off?
- Need to understand the consequences of failure of institutional controls.
- Risk to environment from uranium may push cleanup more than the drinking water standard
- Cleanup should be protective of biota – the industrial standard is not protective of biota, animals they are there 24/7.
- Riverfront property is the key distinction, not contaminated areas (i.e., inside versus outside the fence).
- Stay flexible during cleanup decision process.
- Based on cleanup technology availability, use a phased approach for land use.
- Institutional controls for uranium won't work, but other shorter-term institutional controls are valid.
- Need to clarify confusing technical issues for the public (e.g., the difference between U-235 and U-238, or the differences between radiological dose and toxicological exposure).
- <u>Institutional Controls</u>
    - Need to be redundant
    - Integrated with land use and cleanup standards
    - The consequence of failure needs to be understood - failure seems certain, especially over time (who enforces cleanup then?)
    - Enforcing agencies in the future must ensure compliance with required controls.